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Notice of Oral *Ex Parte* Presentation

June 27, 2005

ORIGINAL

Ms. Marlene H. Dortch
Secretary
Federal Communications Commission
445 12th Street, S.W.
Washington, DC 20554

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JUN 27 2005

Federal Communications Commission
Office of Secretary

Re: In the Matter of Unlicensed Operation in the 3650-3700 MHz, ET Docket No. 04-151; Additional Spectrum for Unlicensed Devices Below 900 MHz and the 3 GHz Band, ET Docket No. 02-380; and
Amendment of the Commission's Rules With Regard to the 3650-3700 MHz Government Transfer Band, ET Docket No. 98-237.

Dear Ms. Dortch:

On June 21, 2005, Peter Pitsch and Michael Chartier of Intel Corporation ("Intel") and Mitch Vine of Redline Communications, Inc. ("Redline") met with Bruce Franca, Julius Knapp, James Schlichting, and Alan Scrime of the Office of Engineering and Technology regarding the above proceedings.

In the course of the meeting, Intel and Redline referenced their Petition for Reconsideration, filed on June 10, 2005, with Co-Petitioner Alvarion, Inc. and presented slides on contention protocol issues (attached).

Intel and Redline stated that the 3650-3700 MHz band should be allocated in a manner which would provide expeditious, low cost access to this spectrum for rural WISPs and promote efficient use of this spectrum in congested MSAs. Specifically, Intel and Redline discussed their compromise proposal whereby the FCC would prescribe non-exclusive licensed use (with no contention protocol) in rural areas and licensed use in the Top 50 MSAs. Intel and Redline emphasized the technical difficulties of utilizing a contention protocol for long range services in congested areas.

Pursuant to Section 1.1206 of the Commission's Rules, 47 C.F.R. § 1.1206, a copy of this submission is being provided to each of the abovementioned parties. Please contact the undersigned with any questions in connection with this filing.

Respectfully submitted,

/s/ Marjorie J. Dickman

Marjorie J. Dickman
Intel Corporation
Senior Attorney, Government Affairs

Att: Slide set: "Contention Protocol Issues."

cc: Bruce Franca
Julius Knapp
James Schlichting
Alan Scrime

Contention protocol issues

- Carrier Sense Multiple Access with Collision Avoidance (CSMA/CA) or LBT works if:
  - Victim receiver to victim transmitter separation is small
    - Co-located
    - Low power systems
  - Interfering transmitter is low power
    - Lower potential interfering range mean less "hidden node" margin is needed
  - Interfering transmitter can sense well below victim receiver sensitivity
  - Small number of sharers per MHz is low
    - Everyone must listen while one speaks
    - Range of random wait times is used
      Efficiency is not critical
  - Omni directional antennas are used
    - Need to "hear" in all directions

Wifi vs Wimax

VTx to VRx separation	10's of meters	100's to 1000's of meters
ITx power	100mw	25W
Sense level	~ -65dbm	-100dbm
Number of sharers/Mhz	10's per 90MHz	100's per 50MHz
Antenna	Omni	Directional

Contention protocol issues

- A long range BWA systems fails to meet ALL/ANY criteria for a LBT mechanism.
- In a long range system coordination among operators is the only way to avoid interference.